

## **CITY OF ALAMEDA**

### **Memorandum**

To: Honorable Mayor and  
Members of the City Council

From: John A. Russo  
City Manager

Date: July 19, 2011

Re: Adopt Plans and Specifications and Authorize a Call for Bids for the  
Upgrade of the City of Alameda Sewer Pump Stations, Phase 3: Bay Farm  
Island Pump Station Rehabilitation, No. P.W. 12-10-35, Including the  
Standardization of Major Equipment Components for all City of Alameda  
Sewer Pump Stations

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### **BACKGROUND**

On February 1, 2011, the City Council awarded a contract in the amount of \$185,831 to Waterworks Engineers to provide design services and construction support for the upgrade of the Bay Farm Island (BFI) sewer pump station. Improvements at BFI are needed to provide reliability, efficiency, and sufficient sewer capacity. Plans and specifications are complete and are ready for public bid.

### **DISCUSSION**

In accordance with the Environmental Protection Agency's Administrative Order and the General Waste Discharge Requirements of the Regional Water Quality Control Board and the State Water Resource Control Board, Alameda is required to upgrade all 42 sewer pump stations and implement ongoing operations and maintenance procedures to limit public health impacts associated with sanitary sewer overflows (SSO). The proposed project will provide electrical, mechanical, and structural improvements to the BFI sanitary sewer pump station located on Clubhouse Memorial Road at the Chuck Corica Golf Course. The identified upgrades include pumps, emergency back-up power generators, wastewater storage facilities, remote monitoring and communication equipment, and back-up level controls.

In addition, to allow for the construction, equipment placement, and maintenance access to the pump station and equipment, six small Myoporum trees will need to be removed. A new landscaping plan is included as part of the project to beautify the site and screen the equipment. The new landscaping includes Yellow Trumpet Vine, New Zealand Flax, and Santa Cruz Island Buckwheat. The Recreation & Park Director has reviewed and approved the proposal to remove the small trees and provide new landscaping.

### **Proposal to Standardize Equipment:**

The Operation and Maintenance Program of the City's Sewer System Management Plan (SSMP) requires the City to: include specific requirements for implementing proactive maintenance procedures; identify and fund rehabilitation and replacement of deficient assets; ensure staff training on all equipment; and keep adequate spare parts for critical components of the sanitary sewer system.

To assist with meeting these requirements, the Public Works Department proposes to standardize the manufacturer and model for specific major components of the pump stations to provide more efficient and reliable operation of the equipment. In accordance with the California Public Contract Code 3400, the specifications state that the City has decided to standardize specific equipment in order to match other products in use or on a particular public improvement that is either completed or in the course of completion, and to field test that the equipment is suitable for future use. In addition, standardizing the specific major components of the pump stations would result in more efficient and reliable equipment operations, faster repair time on incidents that could cause an SSO through the use of common parts, reduce on-going training costs; and minimize spare and critical replacement parts inventory and costs.

The following major components are identified as candidates for standardization:

- Sewage Pumps
- Emergency Power Generation Equipment (Back-Up Generator)
- Pump Controllers
- Supervisory Controls and Data Acquisition (SCADA) components
- Electrical, Instrumentation, and Controls

The following key factors were considered during equipment selection: cost, efficiency, manufacturer support, location of factory-authorized service facility, manufacturer emergency and non-emergency response time, prior use, and previous training of City staff.

Based on these criteria and others, the following standard equipment is recommended:

- Flygt N-Series Submersible and Dry-Pit Submersible Pumps (>2 HP)
- Barnes Submersible Grinder Pumps (low flow / low head ~ 2 HP or less)
- Cummins Power Generation (stationary standby emergency generators)
- Eaton Insight motor monitor
- Unitronics controller V350 controller with Pump vision and motor vision
- MOSCAD (Motorola SCADA)
- PMC, VL2000 Series Submersible Hydrostatic (Pressure) Level Transmitter

- MJK 7030 Float Type Level Switches Floats

The City shall maintain a list of the standard equipment in the SSMP and present this list, including any updates, to the City Council for re-certification as part of the SSMP Audit Schedule. In addition, the City will solicit competitive bids on the standardized equipment and spare parts from approved distributors of the above manufacturer products to accommodate inventory procurement. A copy of the plans and specifications is on file in the City Clerk's office.

#### FINANCIAL IMPACT

The project is budgeted in the Capital Improvement Program (Project Name Sewer Pump Station Upgrades, Project Number 91008), with monies allocated from the Sewer Enterprise Fund (Fund 602). This project will have no financial impact on the General Fund.

#### MUNICIPAL CODE/POLICY DOCUMENT CROSS REFERENCE

This action does not affect the Municipal Code.

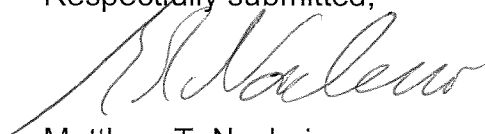
#### ENVIRONMENTAL COMPLIANCE

In accordance with the California Environmental Quality Act (CEQA), this project is Categorically Exempt under CEQA Guidelines, Section 15301(b), Existing Facilities (Repair and Restoration of Existing Public Utilities to Provide Sewer, Water, Electricity, etc.).

#### RECOMMENDATION

Adopt plans and specifications and authorize a call for bids for the upgrade of the City of Alameda sewer pump stations, Phase 3: Bay Farm Island pump station rehabilitation, No. P.W. 12-10-35, and standardize equipment for specific major components for all City of Alameda sewer pump stations.

Respectfully submitted,



Matthew T. Naclerio  
Public Works Director

Honorable Mayor and  
Members of the City Council

July 19, 2011  
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By,

A handwritten signature in cursive script that reads "Paul Soo, Jr.".

Paul Soo, Jr.  
Assistant Civil Engineer

Approved as to funds and account,

A handwritten signature in cursive script that reads "Fred Marsh".

Fred Marsh  
Controller

Exhibit:

1. Plans and Specifications – on file with the City Clerk's office